



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/715,672	11/18/2000	James Clark Baker	TTI-0001	7850
7590	07/28/2004		EXAMINER	
James Baker			CURS, NATHAN M	
TriBeam Technologies, Inc.				
116 W. Eastman			ART UNIT	PAPER NUMBER
Suite 208			2633	
Arlington Heights, IL 60004				DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/715,672	BAKER ET AL.	
	Examiner	Art Unit	
	Nathan Curs	2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 18 November 2000.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-38 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) 37 and 38 is/are allowed.
 6) Claim(s) 1-6,14-16,18-23,31-33,35 and 36 is/are rejected.
 7) Claim(s) 7-13,17,24-30 and 34 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 18 November 2000 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figures 17-18, 22 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: page 1, line 10 – the serial number of the referred application is missing. Page 31, line 20, - "FIGs. 18 and 19" should be "FIGs. 17 and 18".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-6, 14-16, 19-23, 31-33, and 36 are rejected under 35 U.S.C. 102(a) as being anticipated by Meyer (US Patent No. 6061155).

Art Unit: 2633

Regarding claim 1, Meyer discloses a portable device comprising: a first communication mode adapted to permit the portable device to transmit and to receive an infrared data association (IrDA) signal over a first communication range and a second communication mode adapted to permit the portable device to transmit and to receive an extended range infrared communication (ERIC) signal over a second communication range that is greater than the first communication range (col. 3, lines 28-56), where the signal of the extended communication mode disclosed by Meyer is an extended range infrared communication signal.

Regarding claim 2, Meyer discloses a portable device according to claim 1 further comprising: an IrDA compliant transceiver (col. 2, lines 50-63) including: a transmitter adapted to transmit the IrDA signal over the first communication range when the portable device is operating in the first communication mode and adapted to transmit the ERIC signal over the second communication range when the portable device is operating in the second communication mode (fig. 6, element 60, and col. 3, lines 28-56); and a receiver adapted to receive the IrDA signal over the first communication range when the portable device is operating in the first communication mode and adapted to receive the ERIC signal over the second communication range when the portable device is operating in the second communication mode (fig. 6, element 61 and col. 3, lines 28-56).

Regarding claim 3, Meyer discloses a portable device according to claim 2 wherein the transmitter further comprises: a near infrared emitter diode adapted to convert a transmit signal from an electrical signal into an infrared signal that is representative of the electrical signal (fig. 6, element 60, fig. 7, element 73 and col. 3, lines 18-20 and col. 4, lines 36-42), where a near infrared emitter diode is inherent in an IrDA transmitter, and wherein the transmit signal represents the IrDA signal when the portable device is operating in the first communication

Art Unit: 2633

mode, and wherein the transmit signal represents the ERIC signal when the portable device is operating in the second communication mode (col. 3, lines 28-56).

Regarding claim 4, Meyer discloses a portable device according to claim 2 wherein the receiver further comprises: a near infrared detector diode adapted to convert a receive signal from an infrared signal into an electrical signal that is representative of the infrared signal (fig. 6, element 61, col. 3, lines 18-20 and col. 4, lines 43-49), where a near infrared detector diode is inherent in an IrDA receiver, and wherein the receive signal represents the IrDA signal when the portable device is operating in the first communication mode, and wherein the receive signal represents the ERIC signal when the portable device is operating in the second communication mode (col. 3, lines 28-56).

Regarding claim 5, Meyer discloses a portable device according to claim 1 further comprising: a controller adapted to control a selection of one of the first communication mode and the second communication mode responsive to a communication mode control signal (col. 3, lines 28-56), where the received signal saturation detection and subsequent adjustment of signal spike level indicates an inherent control section of the communication modes.

Regarding claim 6, Meyer discloses a portable device according to claim 1 further comprising: a memory device including: a first software routine adapted to cause the portable device to operate in the first communication mode; and a second software routine adapted to cause the portable device to operate in the second communication mode (col. 3, lines 28-56), where the use of the transceivers in computing equipment (col. 1, lines 22-30) and where the received signal saturation detection and subsequent adjustment of signal spike level indicates an inherent memory device and software routine adapted to control the communication modes.

Regarding claim 14, Meyer discloses a portable device according to claim 1 further comprising: a signal modulator/demodulator (modem) (col. 3, lines 18-20 and col. 4, lines 36-

Art Unit: 2633

49), where the IrDA transceiver comprises both modulator and demodulator, including: an IrDA signal modulator adapted to transmit the IrDA signal using an IrDA signal modulation method when the portable device is operating in the first communication mode, an IrDA signal demodulator adapted to receive the IrDA signal using an IrDA signal demodulation method when the portable device is operating in the first communication mode (fig. 3 and col. 3, lines 28-38) and adapted to receive the ERIC signal using the IrDA signal demodulation method when the portable device is operating in the second communication mode; and an ERIC signal modulator adapted to transmit the ERIC signal using an ERIC signal modulation method when the portable device is operating in the second communication mode (fig. 3 and col. 3, lines 39-56).

Regarding claim 15, Meyer discloses a portable device according to claim 14 wherein the ERIC signal modulation method further comprises: amplitude modulation (AM) (fig. 3 and col. 3, lines 28-38), where the spike signal modulated onto the date signal is amplitude modulation (see also fig. 5 and col. 3, line 57 to col. 4, line 13).

Regarding claim 16, Meyer discloses a portable device according to claim 15 wherein the amplitude modulation (AM) further comprises: a main carrier signal representing the ERIC signal at an infrared frequency (fig .5C and col. 3, line 57 to col. 4, line 13); and a sub-carrier signal, modulated onto the main carrier signal, representing the ERIC signal at a first ERIC data rate (figs. 4-5B and col. 3, line 57 to col. 4, line 13).

Regarding claim 19, Meyer discloses a portable device according to claim 1 further comprising: an input device adapted to generate an input signal for controlling the portable device when the portable device is operating in the first communication mode or the second communication mode (fig. 6, element 60, and col. 4, lines 36-42), where the device comprising the transceiver for transmitting is an input device; and an output device adapted to generate an

Art Unit: 2633

output signal responsive to receiving the IrDA signal when the portable device is operating in the first communication mode and responsive to receiving the ERIC signal when the portable device is operating in the second communication mode (fig. 6, element 61, and col. 4, lines 43-49), where the device comprising the transceiver for receiving is an output device.

Regarding claim 20, Meyer discloses a portable device comprising: a memory device including: a first software routine adapted to cause the portable device to operate in a first communication mode permitting the portable device to transmit and to receive an infrared data association (IrDA) signal over a first communication range; and a second software routine adapted to cause the portable device to operate in a second communication mode permitting the portable device to transmit and to receive an extended range infrared communication (ERIC) signal over a second communication range that is greater than the first communication range (col. 3, lines 28-56), where the use of the transceivers in computing equipment (col. 1, lines 22-30) and where the received signal saturation detection and subsequent adjustment of signal spike level indicates an inherent memory device and software routine adapted to control the communication modes; and an IrDA compliant transceiver (fig. 6, element 60) including: a transmitter adapted to transmit the IrDA signal over the first communication range when the portable device is operating in the first communication mode and adapted to transmit the ERIC signal over the second communication range when the portable device is operating in the second communication mode (fig. 6, element 60, and col. 3, lines 28-56); and a receiver adapted to receive the IrDA signal over the first communication range when the portable device is operating in the first communication mode and adapted to receive the ERIC signal over the second communication range when the portable device is operating in the second communication mode (fig. 6, element 61 and col. 3, lines 28-56).

Art Unit: 2633

Regarding claim 21, Meyer discloses a portable device according to claim 20 wherein the transmitter further comprises: a near infrared emitter diode adapted to convert a transmit signal from an electrical signal into an infrared signal that is representative of the electrical signal (fig. 6, element 60, fig. 7, element 73, col. 3, lines 18-20 and col. 4, lines 36-42), where a near infrared emitter diode is inherent in an IrDA transmitter, and wherein the transmit signal represents the IrDA signal when the portable device is operating in the first communication mode, and wherein the transmit signal represents the ERIC signal when the portable device is operating in the second communication mode (col. 3, lines 28-56).

Regarding claim 22, Meyer discloses a portable device according to claim 20 wherein the receiver further comprises: a near infrared detector diode adapted to convert a receive signal from an infrared signal into an electrical signal that is representative of the infrared signal (fig. 6, element 61, col. 3, lines 18-20 and col. 4, lines 42-49), where a near infrared detector diode is inherent in an IrDA receiver, and wherein the receive signal represents the IrDA signal when the portable device is operating in the first communication mode, and wherein the receive signal represents the ERIC signal when the portable device is operating in the second communication mode (col. 3, lines 28-56).

Regarding claim 23, Meyer discloses a portable device according to claim 20 further comprising: a controller adapted to control a selection of one of the first communication mode and the second communication mode responsive to a communication mode control signal (col. 3, lines 28-56), where the received signal saturation detection and subsequent adjustment of signal spike level indicates an inherent control section of the communication modes.

Regarding claim 31, Meyer discloses a portable device according to claim 20 further comprising: a signal modulator/demodulator (modem) (col. 3, lines 18-20 and col. 4, lines 36-49), where the IrDA transceiver comprises both modulator and demodulator, including: an IrDA

Art Unit: 2633

signal modulator adapted to transmit the IrDA signal using an IrDA signal modulation method when the portable device is operating in the first communication mode, an IrDA signal demodulator adapted to receive the IrDA signal using an IrDA signal demodulation method when the portable device is operating in the first communication mode (fig. 3 and col. 3, lines 28-38) and adapted to receive the ERIC signal using the IrDA signal demodulation method when the portable device is operating in the second communication mode; and an ERIC signal modulator adapted to transmit the ERIC signal using an ERIC signal modulation method when the portable device is operating in the second communication mode (fig. 3 and col. 3, lines 39-56).

Regarding claim 32, Meyer discloses a portable device according to claim 31 wherein the ERIC signal modulation method further comprises: amplitude modulation (AM) (fig. 3 and col. 3, lines 28-38), where the spike signal modulated onto the date signal is amplitude modulation (see also fig. 5 and col. 3, line 57 to col. 4, line 13).

Regarding claim 33, Meyer discloses a portable device according to claim 32 wherein the amplitude modulation (AM) further comprises: a main carrier signal representing the ERIC signal at an infrared frequency (fig. 5C and col. 3, line 57 to col. 4, line 13); and a sub-carrier signal, modulated onto the main carrier signal, representing the ERIC signal at a first ERIC data rate (figs. 4-5B and col. 3, line 57 to col. 4, line 13).

Regarding claim 36, Meyer discloses a portable device according to claim 20 further comprising: an input device adapted to generate an input signal for controlling the portable device when the portable device is operating in the first communication mode or the second communication mode (fig. 6, element 60, and col. 4, lines 36-42), where the device comprising the transceiver for transmitting is an input device; and an output device adapted to generate an output signal responsive to receiving the IrDA signal when the portable device is operating in

Art Unit: 2633

the first communication mode and responsive to receiving the ERIC signal when the portable device is operating in the second communication mode (fig. 6, element 61, and col. 4, lines 43-49), where the device comprising the transceiver for receiving is an output device.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 18 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer (US Patent No. 6061155) in view of Autio et al. (US Patent No. 6714990).

Regarding claims 18 and 35, Meyer discloses a portable device according to claims 1 and 20, respectively, which wireless transmission is serial, but does not explicitly disclose a parallel to serial signal converter coupled to receive a transmit signal, representing the IrDA signal or the ERIC signal, and adapted to convert the transmit signal from a parallel data format to a serial data format; and a serial to parallel signal converter coupled to receive the receive signal, representing the IrDA signal or the ERIC signal, and adapted to convert the receive signal from a serial data format to a parallel data format. Autio et al. disclose a universal serial traffic circuit between a data device and the devices' IrDA wireless transceiver, where parallel-to-serial and serial-to-parallel conversion is used in the serial traffic circuit for interfacing with the transceiver, for transmitting and receiving, respectively (col. 2, lines 17-26, col. 3, lines 20-42, col. 3, line 64 to col. 4, line 22, and col. 4, line 66 to col. 5, line 43). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the universal serial

Art Unit: 2633

traffic circuit between the data device and wireless transceiver of Meyer in order to enable the serial transmission transceiver to transmit and receive data from a parallel connection after converting the parallel data to serial data, as taught by Autio et al.

Allowable Subject Matter

7. Claims 7-13, 17, 24-30, 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims
8. Claims, 37 and 38 are allowable over the prior art.

Conclusion

9. Any inquiry concerning this communication from the examiner should be directed to N. Curs whose telephone number is (703) 305-0370. The examiner can normally be reached M-F (from 9 AM to 5 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached at (703) 305-4729. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



JASON CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600